

Lab Results

Certificate of Analysis
PLM Asbestos Identification

tel - 714-899-8900
free - 888-743-0998
fax - 714-899-7098
www.patriotlab.com

1041 S. Placentia Avenue, Fullerton, CA 92831

Cardinal Environmental Consultants Inc.
2691 Dow Ave. Ste. C2
Tustin, CA 92780

Report Number: 482294
Project Number:
Project Name: GGUSD Carver Elementary School MOD
Project Location:

Date Collected: 1/2/2013
Date Received: 1/3/2013
Date Analyzed: 1/4/2013
Date Reported: 1/7/2013

Collected By: Daniel Gonzales
Claim Number:
PO Number:
Number of Samples: 25

Lab/Client ID/Layer	Location	Material Description	Color	Composition (%)
482294-009 CES-D-09	NA	Acoustic Ceiling Tile	Orange White	96% Cellulose 4% Paint
Total Asbestos	None Detected			
482294-010 CES-E-10	NA	Paint Chip	White Beige	100% Paint
Total Asbestos	None Detected			
482294-011 CES-E-11	NA	Floor Tile	White	79% Carbonate 21% Vinyl Binder
Total Asbestos	None Detected			
482294-012 CES-E-12	NA	Plaster	White Grey	71% Minerals 26% Carbonate 3% Paint
Total Asbestos	None Detected			
482294-013 CES-E-13	NA	Plaster	White	71% Minerals 26% Carbonate 3% Paint
Total Asbestos	None Detected			
482294-014 CES-E-14	NA	Floor Tile	White	79% Carbonate 21% Vinyl Binder
Total Asbestos	None Detected			

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Cardinal Environmental Consultants Inc.
 2691 Dow Ave. Ste. C2
 Tustin, CA 92780

Report Number: 541830
 Project Number:
 Project Name: Carver ES
 Project Location:

Date Collected: 10/6/2014
 Date Received: 10/7/2014
 Date Analyzed: 10/9/2014
 Date Reported: 10/9/2014

Collected By: Mike McDaniel
 Claim Number:
 PO Number:
 Number of Samples: 18

Lab/Client ID/Layer	Location	Material Description	Color	Composition (%)
541830-006 CESA106 14-6	NA	NA	Brown	100% Binder
Total Asbestos	None Detected			
541830-007 CESA106 14-7	NA	NA	Beige	75% Minerals 20% Carbonate 5% Paint
Total Asbestos	None Detected			
541830-008 CESA106 14-8	NA	NA	Brown White	95% Cellulose 5% Paint
Total Asbestos	None Detected			
541830-009 CESA106 14-9	NA	NA	White	93% Carbonate 4% Paint
Chrysotile	3 %			
Total Asbestos	3 %			
541830-010 CESA106 14-10	NA	NA	Green	75% Minerals 20% Carbonate 5% Paint
Total Asbestos	None Detected			

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Cardinal Environmental Consultants Inc.
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Tustin, CA 92780

Report Number: 541830
Project Number:
Project Name: Carver ES
Project Location:

Date Collected: 10/6/2014
Date Received: 10/7/2014
Date Analyzed: 10/9/2014
Date Reported: 10/9/2014

Collected By: Mike McDaniel
Claim Number:
PO Number:
Number of Samples: 18

Lab/Client ID/Layer	Location	Material Description	Color	Composition (%)
541830-011 CESA106 14-11	NA	NA	Brown White	95% Cellulose 5% Paint
Total Asbestos	None Detected			
541830-012 CESA106 14-12	NA	NA	Brown	100% Binder
Total Asbestos	None Detected			
541830-013 CESA106 14-13	NA	NA	Brown White	88% Sulfate 10% Cellulose 2% Glass Fibers
Total Asbestos	None Detected			
541830-014 CESA106 14-14	NA	NA	Grey	75% Minerals 20% Carbonate 5% Paint
Total Asbestos	None Detected			
541830-015 CESA106 14-15	NA	NA	Brown White	95% Cellulose 5% Paint
Total Asbestos	None Detected			

Regulatory Compliance Con't

OSHA requires that the employer is required to protect his employees to the level stipulated in the Standard, or to do an exposure assessment. An exposure assessment is the air monitoring of an employee during lead work to determine his exposure and ultimately to determine the level of protection required. This assessment is applicable to paint systems above .06% or 600 ppm.

Methodology

The data was developed using an X Ray Diffraction device, which reports lead content in milligrams per square centimeter of surface area (mg/cm²). The reading represents the quantity of lead between the surface and the substrate under the square centimeter of surface area contacted by the test device. If the substrate contains lead, the test result will be affected. (Galvanized metal is an example of this.) A positive reading by the XRF definitely means that lead was detected.

The test locations are described according to the following convention: Each building is considered to have an "A" side, which is closest to the main street adjacent to the school. The B-side is the first side clockwise while facing the A side, followed by the C side and the D side. This convention is followed inside and outside of the building.

Where actual samples of the material have been collected and analyzed by a laboratory, the results are reported in weight percent lead in the "comments" column of the survey table. Such data represents the sample only, and may or may not represent the entire thickness of paint on a surface. However, it definitely should not be affected by the substrate.

Results

The survey of Carver Elementary School included 102 XRF readings, covering representative building components, substrates, and paint colors on or in the building. The lead levels in the larger paint systems are low. The higher lead levels are found in various components. (I.e. sinks, fountains...).

The following table lists the higher lead containing components that could likely require demolition and/or removal. These items would certainly require "abatement procedures" be implemented.

Subsequent tables illustrate all of the paint systems at the school site. Regulations may apply to other components with lower levels of lead. The contractor is required to review and verify the scope of work for the project and determine the impact of activities on lead painted surfaces (at any level).

The following table lists the components that are above the HUD regulated level of 1.0 mg/cm².

Building	Component	Location	Quantity
B	Fountain	Exterior	1 ea
E	Ceramic tile	Interior restroom	600 sf

Building	Component	Location	Quantity
K	Fountain	Exterior	2 ea
Throughout	Beam	Interior	<i>Contractor to verify scope</i>
Throughout	Door	Interior	50 ea
Throughout	Porcelain Sink	Interior	50 ea
Throughout	Fascia	Exterior	<i>Contractor to verify scope</i>

Summary/Recommendations

Depending on the scope of work for the project; contractors should determine the level of contractor licensing for the abatement and/or work disturbing lead paint systems.

We recommend “lead certified” painting contractors for the painting of buildings coated with lead paint. Preparation of these surfaces falls under the “trigger task” category of OSHA 1532.1. Preparation of painted surfaces and the ultimate “guarantee” of the final painted product is better completed by a “single” contractor.

RRP certified firms should be considered for incidental work that disturbs small amounts of lead paint. These categories of work may include concrete coring (through lead paint) and structure welding (door hinges etc.).

Abatement companies with CDPH (California Department of Public Health) lead certified staff will be required for all abatement work. The companies selected will have to insure that a certified lead supervisor be present during abatement preparation and be within two hours (response time) during abatement activities.

Painting contractors will be required to collect all paint chips from the preparation activities. The contractor will sample and categorize the waste for disposal. Proof of sampling and waste disposal will be required.

Metal components (coated with lead paint) will likely be recycled. A letter (stating acceptance of material) will be required from the contractor’s recycling facility.

All other waste produced from abatement activities will be separated and staged in a safe storage area at the project site during the sampling process. The characterization of the waste can take up to two weeks and an area will need to be allocated for this purpose. The contractor will be required to conduct and pay all costs associated with the characterization of the waste. Copies (proof) of all characterization of waste will be demanded on completion and before waste transport.

Final Comments

Other contractors at the site should be made aware of the lead paint issues and use “lead safe” work practices. Sand blasting, dry sanding, and torching should be restricted in these areas or, if that is not feasible, use CDPH certified employees for these processes.

Lead Tables

Garden Grove Unified School District

Lead Survey

Carver Elementary School

Inspection Date: 1/4/2013

Bldg.	Location	Component	Substrate	Color	Lead Mg/cm2	Comments
K	A Int	Wall	Wood	White	0.02	K-A
	"	Window Sill	Wood	White	0.03	"
	"	Window Frame	Wood	White	0.03	"
	"	Beam	Wood	White	0.05	"
	C Int	Door Frame	Wood	White	0.01	"
	"	Door	Wood	Green	0.00	"
	D Int	Sink	Porcelain	White	44.60	"
	"	Wall	Plaster	White	0.12	Little Boys Bath
	"	Toilet	Porcelain	White	0.02	"
	"	Cabinet	Wood	White	0.00	"
	"	Sink	Porcelain	White	3.50	"
	C Ext	Window Frame	Wood	White	0.05	Slider
	"	Window Frame	Wood	White	0.02	"
	"	Window Sill	Wood	White	0.02	"
	"	Wall	Stucco	White	0.01	"
	"	Drinking Fountain	Porcelain	White	41.70	"
	"	Door	Wood	Green	1.40	"
	"	Door Frame	Wood	Green	0.05	"
	A Ext	Facia	Wood	Green	1.70	"
	"	Beam	Wood	Green	0.07	"
	"	Eave	Wood	White	0.40	"
	"	wall	Wood	White	0.10	"
	"	Fire Box	Metal	White	0.40	"
	"	Vent	Metal	White	0.40	"
A	D Int	Window Frame	Wood	White	0.12	Office
	"	Wall	Wood	White	0.01	"
	A Int	Door	Wood	White	0.01	Interior Door
	"	Door Frame	Wood	White	0.00	Interior Door
	"	Door	Wood	Green	0.02	Office
	"	Door Frame	Wood	White	0.02	"
	C Int	Sink	Porcelain	White	32.00	Lounge
	"	Window Frame	Wood	White	0.06	"
	D Int	Wall	Plaster	White	0.06	Nurse Bath
	C Int	Cabinet	Wood	White	0.00	Nurse Office
	A Ext	wall	Wood	White	0.13	
	"	Window Sill	Wood	White	0.09	
	"	Window Frame	Wood	White	0.07	
	"	Wall	Stucco	White	0.00	
	A Ext	Facia	Wood	Green	2.70	
	"	Eave	Wood	White	0.13	
	"	Cover	Wood	White	0.00	Walkway
	"	Cover Support	Wood	White	0.00	"
	"	Drip Cap	Metal	Green	0.00	"
Bldg.	B Ext	Facia	Wood	Green	1.80	
	"	Eave	Wood	White	0.05	
	"	Drinking Fountain	Porcelain	White	42.30	

Garden Grove Unified School District

Lead Survey

Carver Elementary School

Inspection Date: 1/4/2013

Bldg.	Location	Component	Substrate	Color	Lead Mg/cm2	Comments
B	B Int	Partition	Metal	Blue	0.02	Boys Bath
	"	Wall	Plaster	White	0.21	"
	"	Toilet	Porcelain	White	0.01	"
	"	Urinal	Porcelain	White	0.02	"
	"	Sink	Porcelain	White	0.05	"
	A Ext	Beam	Wood	Green	0.02	Room 1
	"	Window Frame	Wood	White	0.10	"
	"	Door	Wood	Green	1.80	"
	"	Door Frame	Wood	Green	0.01	"
	"	Fire Box	Metal	White	0.01	"
	"	Vent	Metal	White	0.40	"
	C Int	Sink	Porcelain	White	40.10	"
	"	Window Frame	Wood	Stain	0.01	"
	"	Wall	Wood	Stain	0.06	"
	"	Beam	Wood	Stain	0.02	"
	A Int	Window Frame	Wood	White	0.03	"
	"	Door Frame	Wood	White	0.03	"
	D Ext	Drinking Fountain	Porcelain	White	31.40	
	C Ext	Window Panel	Transite	Green	0.01	
	"	Window Frame	Wood	White	0.00	
	"	Beam	Wood	Green	1.70	
	"	Wall	Stucco	White	0.00	
	A Ext	Facia	Wood	Green	1.70	
	"	Eave	Wood	White	0.06	
	"	Door	Wood	Green	1.40	Room 4
	"	Door Frame	Wood	Green	0.01	"
	"	Fire Box	Metal	White	0.17	"
	"	Vent	Metal	White	0.00	"
	C Int	Sink	Porcelain	White	46.50	"
	B Int	Wall	Wood	Stain	0.01	"
	A Int	Cabinet	Wood	Stain	0.00	"
	"	Window Frame	Wood	White	0.01	"
	"	Door Frame	Wood	White	0.03	"
D	C Ext	Wall	Stucco	White	0.00	
	"	Facia	wood	Green	0.80	
	"	Beam	Wood	Green	0.01	
	"	Eave	Wood	White	0.30	
	"	Window Panel	Transite	Green	0.02	Room 8
	"	Door	Wood	Green	1.40	"
	A Int	Sink	Porcelain	White	41.20	"
	"	Wall	Wood	White	0.01	"
	B Int	Heater	Metal	tan	0.05	"
	"	Beam	Wood	Stain	0.00	"
E	A Ext	Wall	Stucco	White	0.01	
	"	Facia	Wood	Green	0.19	
	"	Beam	Wood	green	0.02	

Garden Grove Unified School District

Lead Survey

Carver Elementary School

Inspection Date: 1/4/2013

Bldg.	Location	Component	Substrate	Color	Lead Mg/cm2	Comments
E	A Ext	Door	Wood	Green	1.20	MPR
	"	Door Frame	Metal	Green	0.00	"
	C Int	Wall	Plaster	White	0.01	MPR Music Room
	A Int	Door	Wood	Green	1.10	MPR
	"	Door Frame	Metal	Green	0.13	"
	"	Drinking Fountain	Porcelain	White	0.10	MPR Interior
	D Int	Wall	Plaster	White	0.06	Stage
	C Int	Table Holder	Wood	White	0.00	MPR
	"	Table Holder	Metal	Tan	0.00	"
	A Int	Base Tile	Ceramic	Beige	9.00	Staff Bathroom